

Methane Monitoring Form

Site Name: Mister M landfill

Date: 2/19/13

Personnel: Martin Van Oort

Field Conditions: 24°, windy, cloudy

Meter Model: GF6 450

Calibration

Time: 1030 Standard: 50% LEL Pre-Reading: —

Post-Reading: 51% LEL

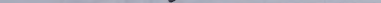
[illegible]

Notes: _____

.....

Signature: [Signature]

Page 1 of 1

Signature:  Page 1 of 1

Closed

County Fergus

Facility & # Mister M #302

Closure

Landfarm

Finan Assur

Liner

GW Corr Meas

Methane

GW Monitoring

O & M

GW Reports

Run-on

Inspections

Other: _____

Methane Monitoring Form

Site Name: Master M Landfill Date: 10/23/12

Personnel: Martin Van Ant

Field Conditions: Cool, breezy, partly cloudy

Meter Model: GFB 450

Calibration
Time: 1025 Standard: 50% Pre-Reading: 51% Post-Reading: 50.5%

[illegible]

Notes:

Signature:  Page 1 of 1

Methane Monitoring Form

Site Name: Mr M Landfill

Date: 2/12/12

Personnel: Marten Van Oort

Field Conditions: Sunny, 70's

Meter Model: 6F6 450

Calibration 9/12/12

Time: 739 Standard: 50% LEL Pre-Reading: 52.5

Post-Reading: 50.5

[illegible]

Notes: D2 Sangar has failed. Error Code 2.

Signature:

Page 1 of 4

Closed

County Fergus

Facility & # Mister M #302

Closure

Landfarm

Finan Assur

Liner

GW Corr Meas

Methane

GW Monitoring

O & M

GW Reports

Run-on

Inspections

Other: _____

Methane Monitoring Form

Site Name: Myster M Landfill

Date: 5/22/12

Personnel: Martin Van Oort

Field Conditions: Partly cloudy, breezy, warm

Meter Model: GF6 450

Calibration

Time: 1150 Standard: 50% LEL Pre-Reading: 54% LEL Post-Reading: 50% LEL

[illegible]

Notes: Oxygen sensor drifting rapidly, not reliable.

Signature:

Page 1 of 1

Closure

County Fergus

Facility & # Mistral M #302

Closure

Landfarm

Finan Assur

Liner

GW Corr Meas

Methane

GW Monitoring

O & M

GW Reports

Run-on

Inspections

Other: _____

Methane Monitoring Form

Site Name: Master M. Lindfill Date: 2/9/12

Personnel: Martin Van Oort

Field Conditions: mostly sunny, windy 20's

Meter Model: 6F6 6450

Calibration
Time: 2/8/12 Standard: 50% LEL Pre-Reading: — Post-Reading: 50.5%

[illegible]

Notes:

Signature: W. H. W. Page 1 of 1

2/10/50-1

County Forges

Facility & # Mister M #302

Closure Landfarm

Finan Assur Liner

GW Corr Meas Methane

GW Monitoring O & M

GW Reports Run-on

Inspections

Other: _____

Methane Monitoring Form

Site Name: Mist - M Landfill

Date: 10/17/11

Personnel: Martin Van Dant

Field Conditions: Sunny, breezy, 50's

Meter Model: GF6 450

Calibration

LEL

Time: 1100

Standard: 50%

Pre-Reading:

Post-Reading: 50.5%

[illegible]

Notes:

Signature: _____

Page 1 of 1

Closed

County Forgers

Facility & # Master M

Closure

Landfarm

Finan Assur

Liner

GW Corr Meas

Methane

GW Monitoring

O & M

GW Reports

Run-on

Inspections

Other: _____

Site Name: Mr. M. Lyndell Date: 9/8/11

Field Conditions: Sunny, 80's

Calibration 9/7
Time: 8:00 Standard: 0-50% LEL Pre-Reading: 53.5
-4.0 Post-Reading: 50.5
0.0

Notes: _____

Page 1 of 1

Closed

County Forges

Facility & # Mister M #302

Closure

Landfarm

Finan Assur

Liner

GW Corr Meas

Methane

GW Monitoring

O & M

GW Reports

Run-on

Inspections

Other: _____

CLOSED MISTER M LANDFILL, LICENSE #302
LEWISTOWN, FERGUS COUNTY, MONTANA

METHANE MONITORING PLAN

Prepared By:

Montana Department of Environmental Quality

Solid Waste Section

July 20, 2011

Internal Routing Slip

SW Section

Name		Initials
Janet Handy	1	Jh
Kathy O'Hern		
Mitzi Hansen		
Mary Hendrickson	2	Meh
Renai Hill		
Bruce Meyer	3	BM
Martin Van Oort	5	MVO
Tim Stepp		
Rick Thompson	4	RT

Misc. / Notes

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1.0 INTRODUCTION

This document is the Methane Monitoring Plan for the closed Mister M Landfill, License #302, in Lewistown, Fergus County, Montana. As required by the Administrative Rules of Montana (ARM) 17.50.1404(1)(d) methane monitoring must be conducted throughout the post closure care period of all Class II landfills and must meet the requirements of ARM 17.50.1106.

2.0 SITE DESCRIPTION

2.1 SITE LOCATION

Mister M Landfill is in Fergus County approximately four miles east of Lewistown on US Highway 87, as shown in Figure 1. The facility is located in Township 15 North, Range 19 East, Section 8, at 7 Boyd Creek Road on a 48.974 acre parcel, and is owned by Marvin and Sandra Mintyala. As shown in Figure 2, the landfill lies in a small south facing coulee which drains to Boyd Creek. The landfill operations were conducted primarily on the 30 acres of the parcel that lie to the north of the old railroad grade.

2.2 SITE HISTORY

Waste disposal at the site began in 1956 and the property was purchased by the current owners in 1974. The State of Montana first issued the facility a solid waste disposal license in 1979. From 1990 to 1997 the facility actively operated under Class II landfill license #302. The waste stream was typical municipal solid waste; including paper, plastics, some household metals, and seasonally some woody debris and brush. The facility stopped receiving wastes by September 15, 1998, and was granted interim closure status on December 5, 2000. Final closure of the site has not been granted due to outstanding obligations of the owners.

2.3 SITE GEOLOGY

According to the Geohydrologic Characterization (Gillespie, 1993 revised; and Gillespie, 1994) the landfill is underlain by the Kootenai Formation, which consists of predominately shale with

some silty sandstone. A basal unit of sandstone in the Kootenai formation is the uppermost aquifer in the area. Minor amounts of water have been encountered in the upper portions of the Kootenai Formation but the shallow monitoring wells completed at the site generally were dry or contained minimal volumes of water.

2.4 SITE ACCESS

On December 2, 2002 the MDEQ received permission from the owners' representative, Mr. Timothy O'Hare, to access the site to conduct post closure care activities in the absence of the owners. Access to the site is controlled by a locked gate at the entrance. Access to the monitoring wells is controlled by locked caps. The keys to the locks can be obtained from the MDEQ, Solid Waste Section.

3.0 METHANE MONITORING PLAN

3.1 OBJECTIVES

The objective of this Methane Monitoring Plan is to describe the methane monitoring program for this facility as required in ARM 17.50.1106(2). The objective of the methane monitoring program is to ensure that the concentration of methane gas does not exceed 25% of the lower explosive limit (LEL) in facility structures and does not exceed the LEL at the facility property boundary as required by ARM 17.50.1106(1). The LEL for methane is a concentration of 5%, thus 25% of the LEL is a concentration of 1.25%.

3.2 SCHEDULE

As required in ARM 17.50.1106(3) the methane levels at the facility will be monitored quarterly. Methane monitoring will typically be conducted in February, May, August, and October, and will be combined with groundwater monitoring events when possible.

3.3 MONITORING LOCATIONS AND PARAMETERS

Methane monitoring will be conducted at four monitoring wells surrounding the facility; MW-1, MW-2, MW-5M, and MW-6M. In addition methane levels will be measured in the two passive methane vents installed on the northwest side of the cap. The locations for methane monitoring are shown in Figure 3. The concentrations of methane, oxygen, hydrogen sulfide, and carbon monoxide will be measured at all of the monitoring locations.

3.4 MEASUREMENT PROCEDURES

A handheld gas meter will be used to measure the concentrations of methane, oxygen, hydrogen sulfide, and carbon monoxide at each monitoring point. The gas meter will be calibrated to the appropriate reference gas prior to the methane monitoring event. At the monitoring wells, measurements will be made by attaching the gas meter to the quick connect fitting on the well caps and purging the well until gas readings stabilize. At the gas vents the measurement will be made by inserting the gas meter tubing as far inside the vent pipe as possible and recording the

maximum values detected (minimum for oxygen). All gas measurements will be double-checked for accuracy. The measured methane, oxygen, hydrogen sulfide, and carbon monoxide concentrations for each location will be recorded on the Methane Monitoring Form included in Appendix A.

3.5 REPORTING

The results of the methane monitoring will be reported to the MDEQ, Solid Waste Section. This report will contain copies of the field sheets and any observations made during monitoring. If the methane gas levels exceed the limits set in ARM 17.50.1106(1), the MDEQ Solid Waste Section will be notified as soon as possible. Notification in writing of the levels of the methane gas exceedance and a description of the measures taken to protect human health must be submitted to the MDEQ, Solid Waste Section within 7 days of detection, and an MDEQ approved methane gas remediation plan will be implemented within 60 days of detection.

4.0 HEALTH AND SAFETY PLAN

4.1 SITE HAZARDS

This section describes the hazards that may be generally encountered at the Mister M Landfill facility, as well as hazards specific to methane monitoring activities, and the procedures that will be used by the field personnel to minimize the risks associated with these hazards.

4.1.1 General Hazards

The Mister M Landfill is closed, thus there are no hazards due to landfill operations. A moderate amount of junk material is located throughout the facility, thus care should be taken when driving or walking the site. Rattlesnakes are native to Montana and have been observed in Fergus County, although none have been reported at this site. General weather related hazards such as heat, cold, mud, dust, snow and ice, and lightning could also be encountered at the site.

4.1.3 Methane Monitoring Hazards

Wasps, bees, and spiders can be found in monitoring well casings, thus care should be taken when opening the wells. Methane is a flammable gas and thus no open flames or spark producing devices should be used during methane monitoring activities.

4.2 LEVEL OF PROTECTION

The level of protection required at the Mister M facility is modified OSHA Level D. This level of protection includes, sturdy work boots, a long sleeved shirt, long pants, and work gloves.

4.3 EMERGENCY INFORMATION

Emergency services can be reached by dialing 911. If non-emergency medical attention is needed, the nearest hospital to the Mr. M facility is the Central Montana Medical Center at 408 Wendell Avenue in Lewistown, Montana. Figure 5 is a map of the location of and directions to the Central Montana Medical Center.

5.0 REFERENCES

Gillespie, Robert W. P.E., 1993 revised, "Geohydrologic Characterization, Mister M Landfill, Lewistown, Montana"

Gillespie, Robert W. P.E., 1994, "Addendum to Site Characterization, Mister M Landfill, License No. 302, Lewistown, Montana"

FIGURES

FIGURES

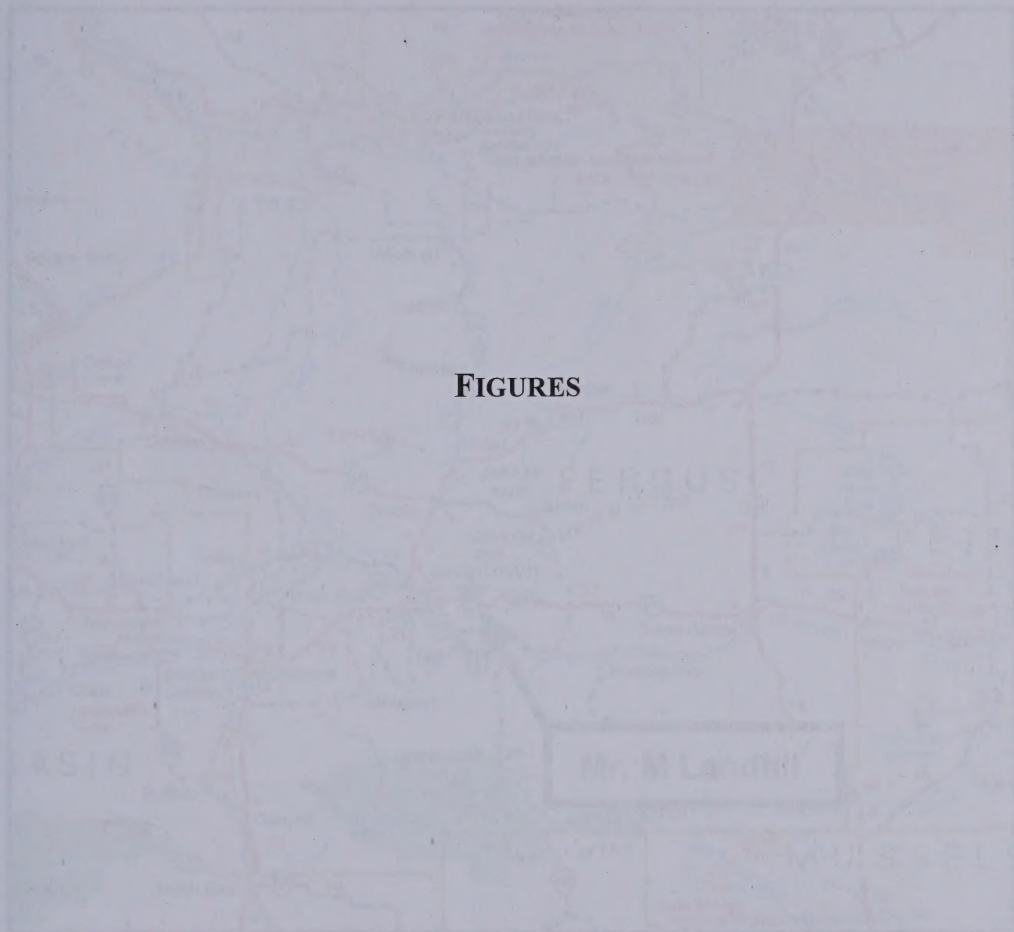


Figure 1 Location Map

Adapted from State of Missouri Highway Map

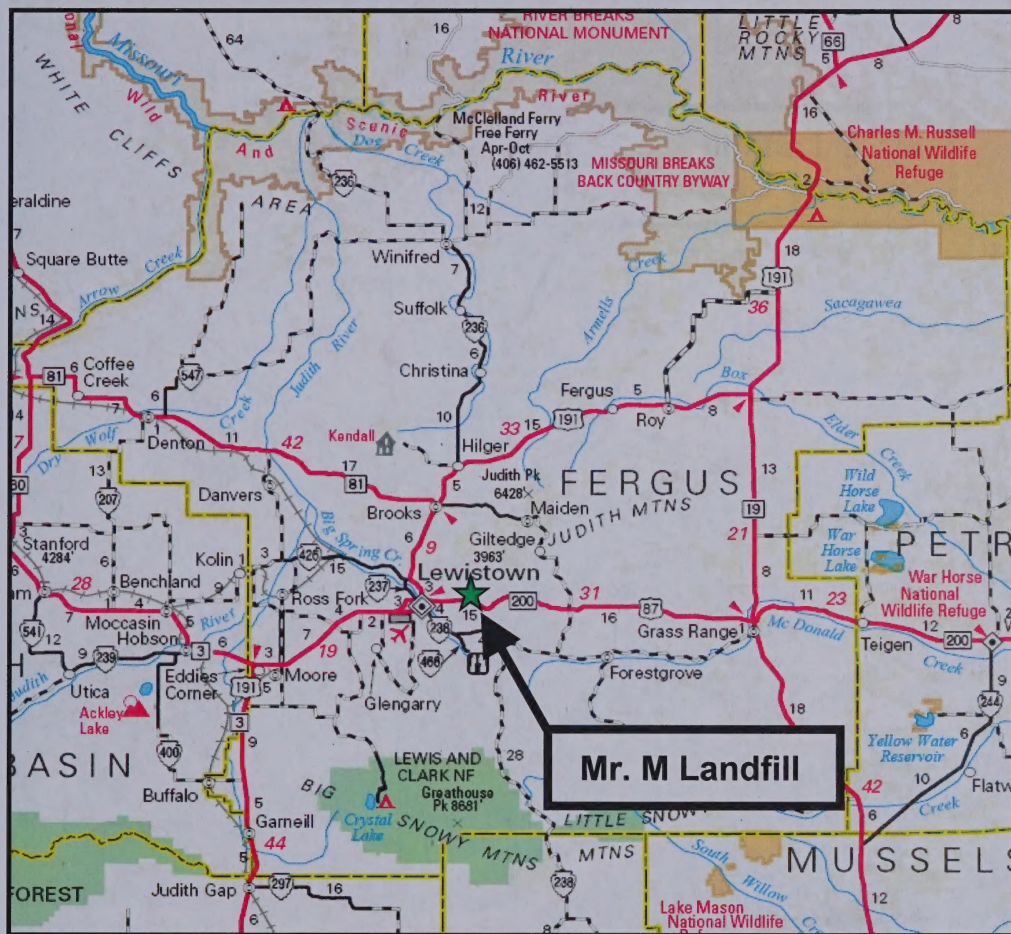


Figure 1: Location Map

Adapted from State of Montana Highway Map.



Adapted from USGS Pike Creek 24k Quadrangle.



Figure 3: Locations for Methane Monitoring

Base Aerial Photo from 2004.

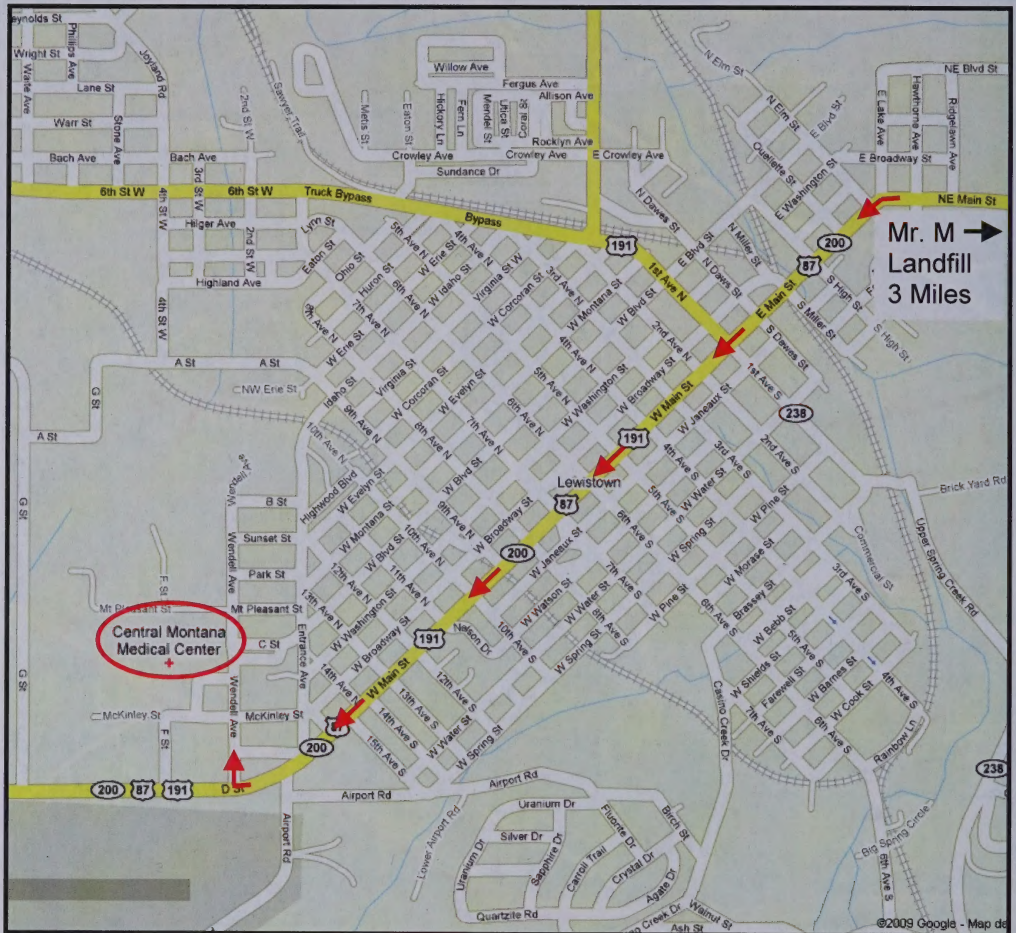


Figure 4: Location of Central Montana Medical Center

Adapted from Google Maps.

Methane Monitoring Form

Site Name: _____ Date: _____

Personnel: _____

Field Conditions: _____

Meter Model: _____

Calibration

Time: _____ Standard: _____ Pre-Reading: _____ Post-Reading: _____

[illegible]

Notes: _____

Signature: _____ Page 1 of 1

Page _____ of _____

County Fergus
 Facility & # Master M #302
 Closure Landfarm
 Finan Assur Liner
 GW Corr Meas Methane
 GW Monitoring O & M
 GW Reports Run-on
 Inspections _____
 Other: _____

Correspondence Slip

Project ID: _____

Requested: 6-11-07

Needed By: 6-11-07

Originator: mlb

Org(s)/Mail Code: _____

REVIEW
ROUTING

Name

Task

Initial/Date

Admin

Proof

gh 6-11-07

Pat

GPC 1611

Rich

RT 6-11-07

Mail original via:

☒ Regular ☐ Certified ☐ Registered ☐ FedEx

Fax to addressee at:

Proof Path: G:\WUT see letter

Mail copy of enclosures to CC's? Y N

Special Instructions:

pls make copy for mmt

Copies of enclosures for file needed? Y N

Copy of letter for file needed? Y N

Site Name: Middle M. Lindell

Date: 10/25/10

Personnel: M₂, V₂, V₂, O₂-T

Field Conditions: Windy, snow showers, 40's

Meter Model: 6F6

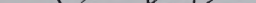
Calibration
Time: _____ Standard: _____ Pre-Reading: _____ Post-Reading: _____

[illegible]

Notes: _____

3/26/10

Signature: [Handwritten Signature] Page 1 of 1

Signature:  Page 1 of 1

Methane Monitoring Form

Site Name: Master M Lundell

Date: 2/26/10

Personnel: Martina Van Oort

Field Conditions: Sunny 30's to 40's, snow cover, drifts to 2', calm

Meter Model: 6FE-6450

Calibration 2/26/10

Time: 1050 Standard: 50

Pre-Reading: 53.5

Post-Reading: 50, 5

[illegible]

Notes: After Over Range reading at MW-SM^{CH} sensor did not return to 0.

Collected 2/23/12

Calculation	P ₁	P ₂	Standard	Bump test
O ₂	48.8	18.7	18.5	18.7
LEL	48.5	50.5	50	50.5
H ₂ S	18.2	20.2	20	18.8
CO	18.7	20.1	20.0	18.7

Signature:

Page of

Methane Monitoring Form

Site Name: Md-M Lm-91 Date: 10/27/09

Personnel: Martin + Joe

Field Conditions: Windy, Partly cloudy, 30's

Meter Model: GFG 450

Calibration Calibration 10/23
Time: _____ Standard: 50% Pre-Reading: 45.5 Post-Reading: 50.5

Time: _____ Standard: 50% Pre-Reading: 45.5 Post-Reading: 50.5

[illegible]

Notes: _____

.....

Signature: [Signature]

Page 1 of 1

Methane Monitoring Form

Site Name: Master M Date: 6-1-08

Personnel: Martin Van Gort

Field Conditions: Rain - SD's

Meter Model: 6F6 6450

Calibration
Time: 10:35 Standard: 50%, LEL Pre-Reading: 51.5% Post-Reading: 50.5%

Calibration
Time: 10:35 Standard: 50%, LEL Pre-Reading: 51.5% Post-Reading: 50.5%

[illegible]

Notes: _____

Signature: J. A. 67 Page 1 of 1

Signature: J. A. 67 Page 1 of 1

Methane Monitoring Form

Site Name: Mr M

Date: 4-8-08

Personnel: Martin Van Oort & Joe Blaine

Field Conditions: Mostly sunny, breezy, 50's

Meter Model: GF6-G450

Calibration
Time: 1300 Standard: 50% LEL Pre-Reading: Post-Reading: 50.1%

Time: 1300 Standard: 50%, LEL Pre-Reading: _____ Post-Reading: 50, 1%

[illegible]

Notes: 4-5 scoops with only shoon, 3-4 other scoops

Signature:

Site Name: Master M Landfill Date: 1-21-08

Personnel: Maarten Van Oort & Joe Blase

Field Conditions: Sunny, 40°S

Meter Model: 6FL 6450

Calibration 1-16-08
Time: 1530 Standard: 50% LEL Pre-Reading: 42.3% Post-Reading: 49.8%

[illegible]

Notes: _____

Signature: _____

WHL



TETRA TECH

September 18, 2007

Mary Louise Hendrickson
Solid Waste Regulatory Program
Montana Department of Environmental Quality
P.O. Box 200901
Helena, Montana 59620-0901

**RE: September 2007 Landfill Gas Monitoring Results
Mister M Landfill, Lewistown, Montana**

Dear Ms. Hendrickson:

Attached please find the field log for quarterly landfill gas monitoring conducted at the Mister M Landfill on September 13, 2007. Concentrations of landfill gas measured at all monitoring locations were 0 percent of the lower explosive limit (LEL). Field personnel indicated that all wells are missing valved sampling ports and well MW-8 has no plastic well cap. Therefore gas monitoring was performed by lowering approximately 10 inches of tubing into the well then sealing the well head as best as possible while taking readings.

Please contact me if you have any comments or questions about landfill gas monitoring results for this site.

Kind Regards,

Jim Maus
Project Manager

Enclosure: Methane Monitoring Log

KI *Call*
RECEIVED

SEP 19 2007

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

Tetra Tech

303 Irene Street, Helena, MT 59601

Tel 406.443.5210 Fax 406.449.3729 www.tetrattech.com

METHANE MONITORING LOG

Project: Mr. M Landfill, Lewistown, Montana

Job No.: 6561159

Date: 7-13-07

Personnel:

Share Mardiyak

Weather:

Sunny & windy

Temp.: -50°F

Barometric Pressure: (443-5151)

inches Hg

Instrument:

67 201

Calibration Date:

9-11-07

Calibrated To:

Methane ~~X~~

Hexane []

Isobutylene []

[illegible]

Notes:

Notes: All wells are missing proper sample ports for gas monitoring. Wells monitored by lowering $\approx 10''$ tube connected to meter into well and replacing cap as best as possible while taking reading.

See field notebook for notes regarding meter functioning.

THIS FACILITY IS IN FORMAL LITIGATION.

PLEASE DO NOT FILE ANY DOCUMENTS IN THIS FILE.

PLEASE GIVE ALL DOCUMENTS TO CAROL UTICK SO THAT THEY CAN BE LOGGED INTO THE DATA BASE AND THEN PUT INTO THE FORMAL LITIGATION FILE.

THANK YOU.

DATE May 97

Closed

County Forges
Facility & # Miston M #302
Closure Landfarm
Finan Assur Liner
GW Corr Meas Methane
GW Monitoring O & M
GW Reports Run-on
Inspections
Other: _____

Methane Monitoring Form

Site Name: Mister A Date: 1/1/01

Personnel: Maarten Van Oort

Field Conditions: mostly cloudy, breezy, sprinkles

Meter Model: GF6-4SD

Calibration
Time: _____ Standard: _____ Pre-Reading: _____ Post-Reading: _____

[illegible]

Notes: * MW-SM: low oxygen ($<10\%$) prevented LEL sensor from working
LEL reading 14.0x higher than recorded

Signature: W. L. H.

Page 1 of 1

ROUTE CLIP

DEPARTMENT OF HEALTH & ENVIRONMENTAL SCIENCES

TO:

DATE:

1.

2.

3.

- | | | |
|--|---|---|
| ☒ Approval | ☐ Comment | ☐ Necessary Action |
| ☐ Note and Return | ☐ Note and File | ☐ Investigate |
| ☐ Prepare reply | ☐ Signature | ☐ See Me |
| ☐ As requested | ☐ For your information | ☐ Per Conversation |

REMARKS:

Another Routine
Methane OK
CC: Dayna also.

FROM:

DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES

Waste Management Division
Solid Waste Program
406/444-1430

FAX # (406) 444-1499

STATE OF MONTANA



OFFICE 2209 PHOENIX AVE.
LOCATION: HELENA, MONTANA

MAILING PO BOX 200901
ADDRESS: HELENA, MT 59620-0901

January 23, 1995

Marvin and Sandy Mintyala
Mr. M Disposal, Inc
HCR 85 Box 4066
Lewistown, MT 59457

NOTICE OF APPROVAL
METHANE MONITORING PLAN

Dear Mr. and Mrs. Mintyala:

Please consider this written approval of the methane monitoring plan submitted to the Department on January 5, 1995, by Robert W. Gillespie for the Mr. M Disposal, Inc. Landfill near Lewistown. The plan must be implemented within thirty (30) days as specified in the Department's January 19, 1995, Notice of Violation and Order to Take Corrective Action, Item V (6).

Please understand that the methane monitoring plan may have to be upgraded as the landfill expands or in the event of detection of methane in the probes. The plan as submitted is sufficient for the current occupied area.

I understand that the hole depths were based on the proposed depth of waste adjacent to the probes, and screened taking into account potential methane pathways. The as-built drawing showing location of the probes was supplied to the Department along with construction details and logs for the probes.

The methane monitor selected by Mr. Gillespie is appropriate for use at the landfill. The instrument should also be calibrated with a methane gas mixture and operated according to the manufacturer's instructions. Keys to the permanent methane probes should be kept with the landfill's operation record so they are available to the Department during landfill inspections. Results should be submitted to the Department as they become available and placed in the operating record. The Department only requires quarterly monitoring but strongly endorses the concept of monthly monitoring during the first year to establish possible weather related gas migration patterns.

Mr. M Methane
January 23, 1995
Page two

If I can be of further help in this matter, please feel free to contact me.

Sincerely,

F. Patrick Crowley
F. Patrick Crowley
Solid Waste Regulatory Lead

cc: R.W. Gillespie, P.O. Box 1730, Sanford, ME 04073
File: Mr. M. Landfill, Fergus County
path: cb5403\wp\landfill\methane\MrM.ok

TO: *PATRICK CROWLEY*
SOLID WASTE

PHONE: *(207) 454-1429*

FROM: *Pat Gillespie*

NO. OF PAGES INCLUDING THIS PAGE: *2*

REMARKS: *E.Y.P. Please call if you have any questions*

PLEASE LET US KNOW IF THE TELECOPY IS UNSATISFACTORY
THANK YOU

Mr. M
MithaneRobert W. Gillespie, P.E.
Consulting Geotechnical & Environmental Engineer

FAX FORM

P.O. Box 876
Lewistown, Montana 59457

DATE 1-19-95

PROJECT MISTER M

TO: PATRICK CROWLEY
SOLID WASTE

FAX NO. (406) 444-1499

FROM: ROB GILLESPIE

NO. OF PAGES INCLUDING THIS PAGE 2

MESSAGE: FYI. Please call if you have any
questions.PLEASE LET US KNOW IF THIS TELECOPY IS UNSATISFACTORY
THANK YOU

Exotox Model 75 - Three-, Four- or Five-Gas Monitor

The Model 75 allows you to monitor up to five gases selected from Oxygen, flammable gas and up to three additional toxic gases together with temperature and relative humidity. Choose from Carbon Monoxide, Hydrogen Sulfide, Sulphur Dioxide, Chlorine or Nitrogen Dioxide.

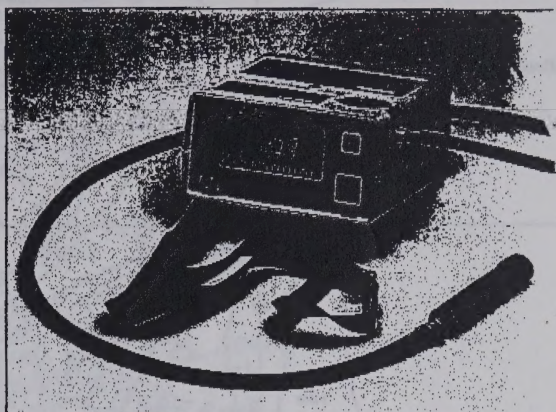
Digital readouts show Oxygen % by Volume, flammable gas % LEL or % by Volume, and toxic gases in ppm.

The Exotox 75 incorporates a built-in data logger which can download up to 30 hours of stored data to a PC or printer at a later time. Unit comes with Ni-Cad rechargeable battery, neck and waist harnesses, tool kit, hand aspirator, sampling hose and case.

Please call for pricing on the model most suitable to your specific needs.

System Data Interface unit is required for down-loading and user personalization/programming by the use of a data card.

HAZCO's 13 Instrument Service Centers offer Repair & Preventative Maintenance Services for all Major Brands of Equipment. See pages 169 - 174 for further details.



Digiflam 2000 Leak Detector

Ideal for Surveying Landfills

The Neotronics Digiflam 2000 is an advanced gas detector designed to track and identify flammable gas and vapor leaks. Calibrated to Methane, this unit is ideal for gas utilities and landfill operations, and can be used to pinpoint a gas leak using borehole measurements to build up a gas level contour map of the area. Following a 45-second auto zero function, automatic range selection allows immediate display of the correct range as either % LEL (0 to 100%), or % Volume (0 to 100%) for the concentration of gas being detected. A built-in diaphragm pump provides continuous and rapid response to changing gas concentrations. Oxygen mode also available. Unit comes complete with water/dirt trap, filters, harness, 8' of tubing, 1" probe, and ATE calibration facility. Operates on 4 "D" cell batteries (included).

CP300-0403-01	 Digiflam 2000 Leak Detector	 \$1,850.00
C-P325-0925-00	 3" Probe	 94.00
C-K600-005-03	 Calibration Kit	 456.75

Available for Rent

This one

Neotronics Exotox Model 55 Multi-Gas Monitors

Oxygen-Combustibles-Hydrogen Sulfide-Carbon Monoxide Monitor with Data Logger

The Model 55 is designed to simultaneously monitor for Oxygen, Combustibles, Hydrogen Sulfide and Carbon Monoxide in dangerous levels. The sensors operate on a concentration basis, and provide a stable output over a wide range of atmospheric pressures and temperatures. Complete data logging capability with computer/printer interface.

Unit comes with Ni-Cad rechargeable battery, carrying case, calibration tool, aspirator attachment, earphone extension, harness, belt-clip and output plug assembly.

B-K300-0269-00	 Model 55 Multi-Gas Monitor	 \$2,882.00
B-N600-0177-54	 Data Logger	 1,050.00
B-P300-0184-03	 Charger	 250.00
B-K600-0008-06	 Calibration Kit	 719.00

Available for Rent

County Fernitas

Facility & # 302 Mr. M

Closure Landfarm

Finan Assur Liner

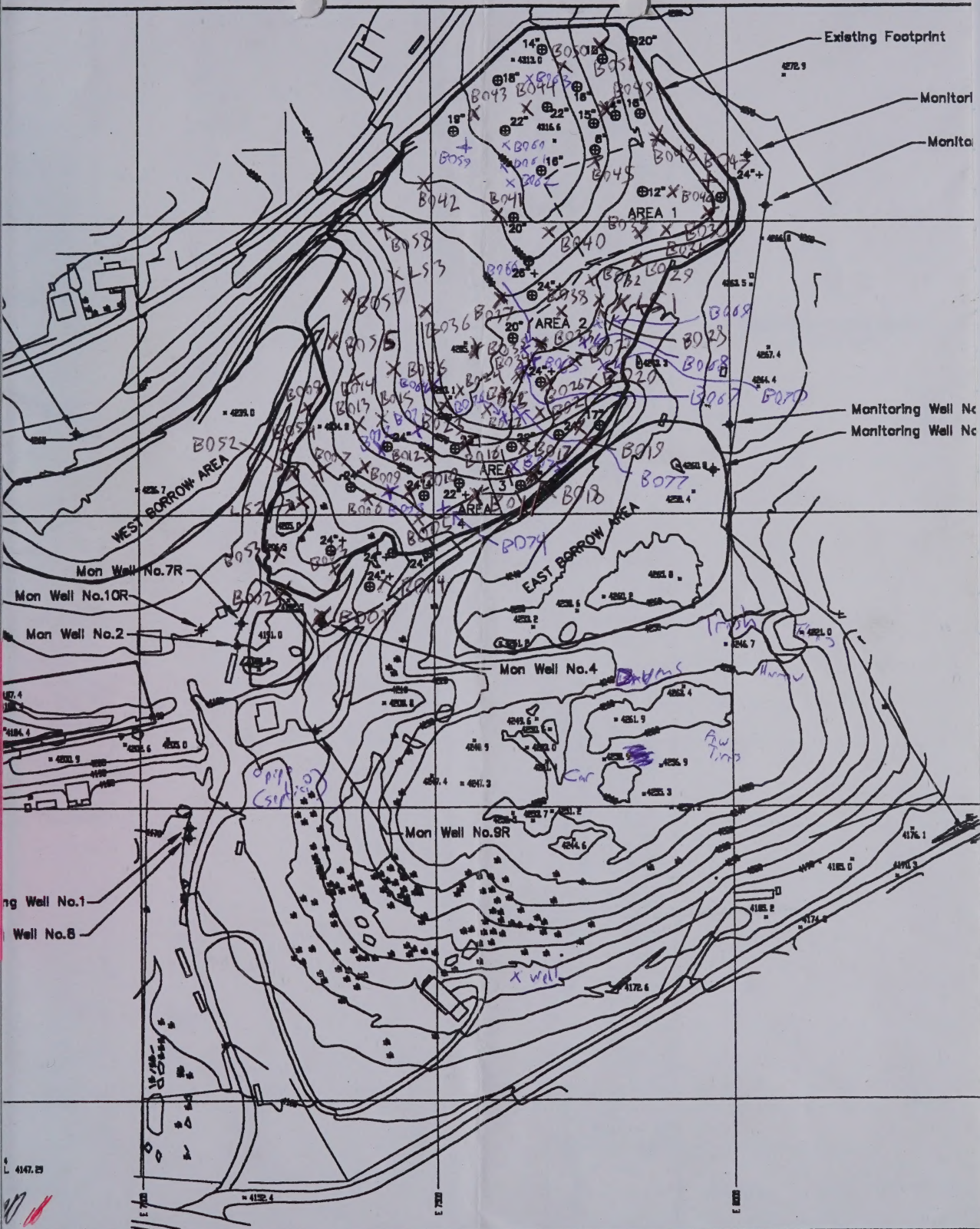
GW Corr Meas Methane

GW Monitoring O & M

GW Reports Run-on

Inspections

Other: _____



County Fergus

Facility & # 302 Mr. M

Closure Landfarm

Finan Assur Liner

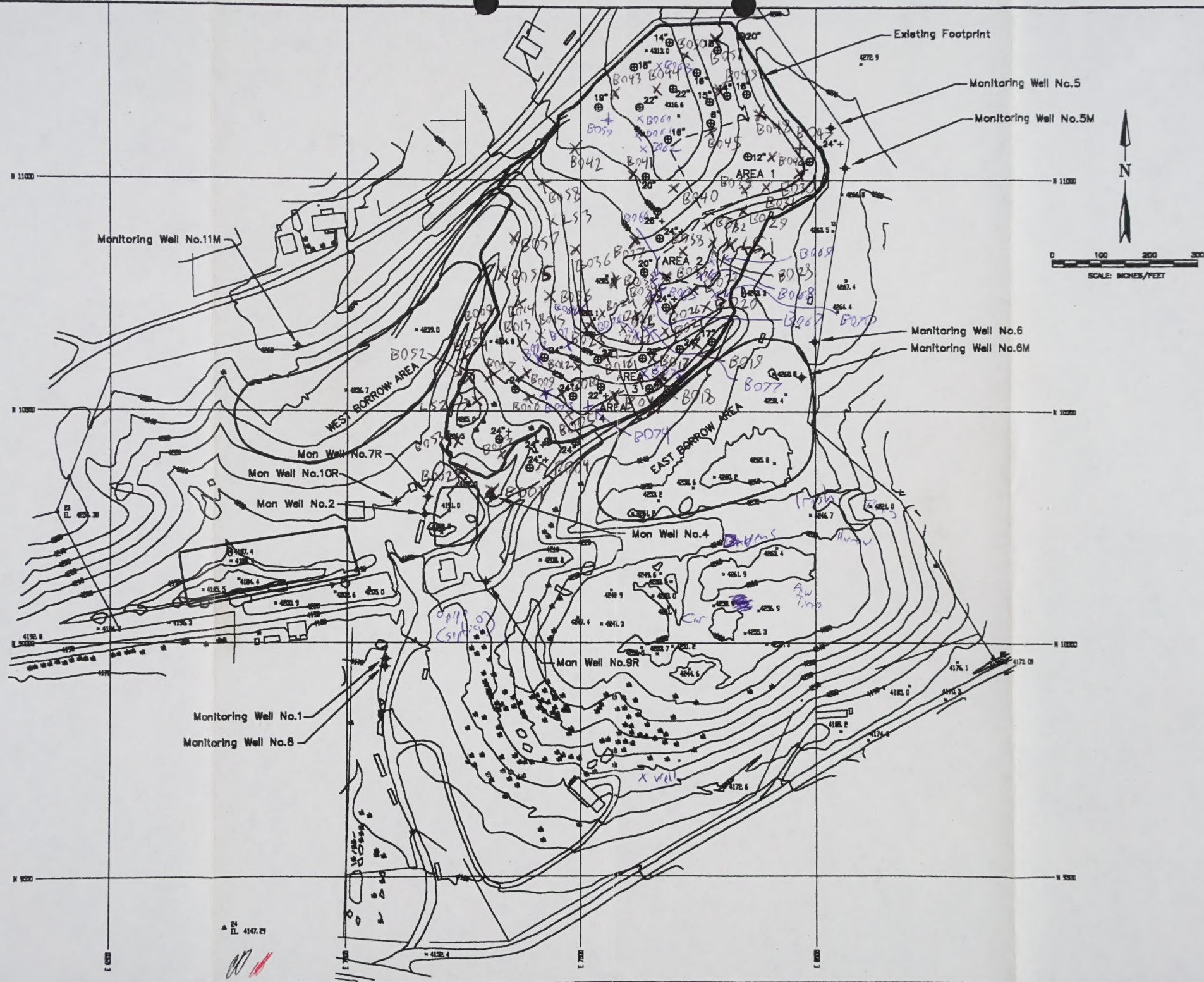
GW Corr Meas Methane

GW Monitoring O & M

GW Reports Run-on

Inspections

Other: _____



PORTAGE ENVIRONMENTAL INC.

2024 9th Avenue
Helena, MT. 59601
Phone (406) 457-0027
Fax (406) 457-0039
E-mail: portage@iri.net



No.	Revision	By	Date

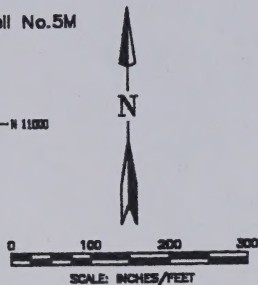
MISTER M LANDFILL CLOSURE
LEWISTOWN, MONTANA

EXISTING SITE CONDITIONS
WITH EXISTING LANDFILL FOOTPRINT

Date: SEPT. 98
Drawn: JMS
Designed: GML
Approved: RGS
Proj. No.: HLB00001
File No.: MR-M-EXISTE.DWG

ng Well No.5

ring Well No.5M



.6
.6M

N 10000

N 10000

4172.00

N 5000

PORTAGE ENVIRONMENTAL INC.

2024 9th Avenue
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No.	Revision	By	Date

MISTER M LANDFILL CLOSURE
LEWISTOWN, MONTANA

EXISTING SITE CONDITIONS
WITH EXISTING LANDFILL FOOTPRINT

Date: SEPT. 98
Drawn: JMS
Designed: GML
Approved: RGS
Proj. No.: HLB00801
File No.: MR-M-EXIST-LW9

Sheet No.

1

of 5

N 11000

Monitoring Well No.1

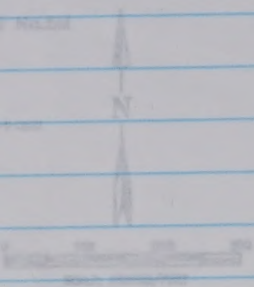
N 10000

N 10000

N 5000

E 5000

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B002	20.4	0	0	0
B003	20.1	0	0	0
B004	20.4	0	0	0
B005	20.4	0	0	0
B006	18.4	0	0	0
B007	12.2	overRange	0	0
B008	20.4	0	0	0
B009	20.4	0	0	0
B010	—	NO Reading	—	—
B011	—	NO Reading	—	—
B012	—	NO Reading	—	—
B013	14.5	overRange	0	0
B014	20.3	52	0	0
B015	—	NO Reading	—	—
B016	—	NO Reading	—	—
B017	—	NO Reading	—	—
B018	—	NO Reading	—	—
B019	—	NO Reading	—	—
B020	—	NO Reading	—	—
B021	20.4	NO Reading	0	0
B022	20.4	0	0	18
B023	20.4	0	0	0
B024	20.5	NO Reading 15	0	0
B025	19.3	5.5	0	0
B026	—	NO Reading	—	—
B027	—	NO Reading	—	—
B028	20.4	0	0	0



PURVIS ENVIRONMENTAL INC.

2000 1000 500 250 125 62.5 31.25 15.625 7.8125 3.90625 1.953125 0.9765625 0.48828125 0.244140625 0.1220703125 0.06103515625 0.030517578125 0.0152587890625 0.00762939453125 0.003814697265625 0.0019073486328125 0.00095367431640625 0.000476837158203125 0.0002384185791015625 0.00011920928955078125 0.000059604644775390625 0.0000298023223876953125 0.00001490116119384765625 0.000007450580596923828125 0.0000037252902984619140625 0.00000186264514923095703125 0.000000931322574615478515625 0.0000004656612873077392578125 0.00000023283064365386962890625 0.000000116415321826934814453125 0.0000000582076609134674072265625 0.00000002910383045673370361328125 0.000000014551915228366851806640625 0.0000000072759576141834259033203125 0.00000000363797880709171295166015625 0.000000001818989403545856475830078125 0.0000000009094947017729282379150390625 0.00000000045474735088646411895751953125 0.000000000227373675443232059478759765625 0.0000000001136868377216160297393798828125 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	O2	LEL	H2S	CO		O2	LEL	H2S	CO
B029	20.4	0	0	0	B057	20.9	0	0	0
B030	20.3	Overrange	0	0	B058	20.5	44	0	0
B031	20.9	0	0	0	B059				
B032	-	NO Reading	-	-	B060				
B033	20.9	0	0	0					
B034	-	NO Reading	-	-					
B035	19.0	0	0	0					
B036	20.9	12.5	0	0					
B037	20.9	0	0	0					
B038	18.1	0	0	0					
B039	19.6	0.5	0	0					
B040	20.9	0	.2	0					
B041	20.9	0	.4	0					
B042	20.9	0	.2	0					
B043	-	NO Reading	-	-	Retrieved				
B044	-	NO Reading	-	-					
B045	-	NO Reading	-	-					
B046	20.9	0	0	0					
B047	20.9	0	0	0					
B048	-	NO Reading	-	-					
B049	-	NO Reading	-	-					
B050	-	NO Reading	-	-					
B051	20.9	0	0	0					
B052	20.9	0	0	0					
B053	20.9	0	0	0					
B054	20.9	0	0	0					
B055	20.5	15	0	0					
B056	20.9	10	0	0					

	GPS	Depth to garbage	other
B001	47.07424, 109.34418	No garbage - Refusal 18"	Monitoring well 4 Clay
B002	47.07438, 109.34428	Refusal 18"	clay
B003	47.07455, 109.34402	30' Garbage !!!	Clay
B004	47.07454, 109.34375	No garbage 3'	Thick clay 65' from B003 (decap)
B005	47.07476, 109.34364	Refusal 16"	clay
B006	47.07486, 109.34388	Refusal 27"	65' from B005 clay
B007	47.07502, 109.34408	Daily cover 30" 30" garbage	Thick clay. → Daily cover
B008	47.07531, 109.34399	Refusal 1'5"	loose clay -
B009	47.07525, 109.34385	Garbage! 2'3"	Clay
B010	47.07492, 109.34349	Garbage! 8"	Stinky clay - daily cover
B011	47.07487, 109.34312	Refusal 1'7"	Clay
B012	47.07500, 109.34338	Garbage!! 8"	Garbage everywhere
B013	47.07521, 109.34373	36" No garbage	daily cover in hole
B014	47.07546, 109.34374	30" Refusal	Clay
B015	47.07524, 109.34350	Garbage! 1'	
B016	47.07513, 109.34319	Garbage! 4" and Refusal 2'	
B017	47.07507, 109.34275	Garbage 6"	
B018	47.07441, 109.34258	Garbage 8"	
B019	47.07516, 109.34245	Garbage 12"	
B020	47.07531, 109.34224	Garbage 10"	
B021	47.07529, 109.34266	Garbage 1"	
B022	47.07530, 109.34389	Refusal 1'9"	clay.
B023	47.07550, 109.34333	Refusal 35"	Clay
B024	47.07556, 109.34327	Garbage 12"	Loose clay Gross garbage
B025	47.07542, 109.34294	Garbage 33"	
B026	47.07547, 109.34264	Garbage 8"	
B027	47.07559, 109.34245	Garbage 7"	
B028	47.07584, 109.34222	Garbage 36" No garbage	Stinks - seen at bottom

	Gps	Depth to Garbage	Other
B029	47.07600, 109.34198	3' No garbage	clay
B030	47.07616, 109.34161	34" Refusal	clay - worms
B031	47.07612, 109.34198	28" Refusal	clay
B032	47.07596, 109.34224	24" Refusal	loose clay
B033	47.07572, 109.34253	3' NO garbage	
B034	47.07553, 109.34283	21" Refusal	
B035	47.07574, 109.34307	3' No garbage	
B036	47.07547, 109.34330	3' NO garbage	
B037	47.07584, 109.34288	30' Refusal	
B038	47.07540, 109.34247	28" Refusal	
B039	47.07616, 109.34225	20" Refusal	
B040	47.07620, 109.34254	27" Refusal	
B041	47.07631, 109.34296	26" Ref Garbage!!	
B042	47.07644, 109.34328	3' No garbage	
B043	47.07663, 109.34299	7" Garbage!!	
B044	47.07643, 109.34253	18" Refusal	
B045	47.07638, 109.34229	18" Refusal	
B046	47.07632, 109.34187	14" Refusal	
B047	47.07633, 109.34158	4" Garbage 25" metal Garbage	
B048	47.07651, 109.34188	8" Garbage!!	
B049	47.07659, 109.34220	12" Garbage!!	
B050	47.07678, 109.34244	12" Garbage!!!	
B051	47.07648, 109.34222	3' No garbage	
B052	47.07491, 109.34431	3' No garbage	wet sand
B053	47.07468, 109.34444	3' No garbage	wet sand
B054	47.07507, 109.34432	12" Garbage	
B055	47.07557, 109.34401	30" Refusal	
B056	47.07576, 109.34364	36" Garbage	

	G.P.S	Depth to garbage	other
B057	47.07584, 109.34385	21"	Refusal
B058	47.07620, 109.34362	24"	Garbage Stinky hole

Mr. Chris Cronin

TETRA TECH

P.O. Box 4779

Shelton, CT 06484

2007-2008 Environmental Monitoring and Assessment Report

WATERBURY, CT 06705 - LEANING, NY

Environmental Monitoring and Assessment

Dear Sir,

This letter is provided as follow-up to our conversation on Wednesday, June 5, 2007 regarding the sampling activities for the closed Mister M landfill in Leavenworth, Kansas. In addition to the groundwater and methane monitoring, a water sampling activity was conducted from the groundwater pond on site during the June sampling event. I am attaching a site map with the groundwater pond highlighted and the analytical list for this particular well, to:

Please consider this correspondence as authorization to proceed with the listed groundwater and methane monitoring activities in accordance with the work schedule provided on June 5, 2007. If you have any questions, or require additional information prior to or during the monitoring event, please do not hesitate to contact me at 406-444-1374.

Sincerely,

Maryann H. H. H.

Senior Project Manager

Environmental Science Specialist

Water Sampling Program

Phone: 406-444-1374 Fax: 406-444-1374

Email: maryann.h@tetra-tech.com

2007-2008 Environmental Monitoring and Assessment Report

WATERBURY, CT



Montana Department of
ENVIRONMENTAL QUALITY

MAILED
6-11-07

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

June 11, 2007

Mr. Chris Cronin
TETRA TECH
P.O. Box 4699
Helena, MT 59604

**RE: 2007 METHANE AND GROUNDWATER MONITORING
MISTER M LANDFILL – LEWISTOWN, MT
AUTHORIZATION TO PROCEED**

Dear Chris,

This letter is provided as follow-up to our conversation on Wednesday, June 6, 2007 regarding the sampling activities for the closed Mister M landfill in Lewistown. As we discussed, in addition to the groundwater and methane monitoring, a water sample needs to be collected from the stormwater pond on site during the June sampling event. I have attached a site map with the stormwater pond highlighted and the analyte list for that particular sample.

Please consider this correspondence as authorization to proceed with the 2007 groundwater and methane monitoring activities in accordance with the cost estimate provided on June 5, 2007. If you have any questions, or require additional information prior to or during the monitoring events, please do not hesitate to contact me at 406-444-1808.

Sincerely,

Mary Louise Hendrickson
Environmental Science Specialist
Solid Waste Regulatory Program
Phone: 406-444-1808; Fax: 406-444-1374
Email: mhendrickson@mt.gov

File: Fergus Co/Closed Mister M Landfill/Groundwater and Methane Monitoring
Path: G:\WUTSWS\GWater\Mr-M-smp\lg-auth.doc

ANALYTE LIST
MISTER M STORMWATER POND SAMPLE

Conventional Pollutants

pH
TSS
BOD
Oil & Grease
TRC
E. Coli
DO
Ammonia as N
Total Kjeldahl Nitrogen
Nitrate + Nitrite
Total Phosphorus as P
TDS
SC
Chloride
Sulfate
Cyanide
Total Phenolic Compounds
Hardness (as CaCO₃)
Alkalinity, as CaCO₃
Total Recoverable Iron
Total Recoverable Manganese

Metals (Total Recoverable)

Antimony
Arsenic
Beryllium
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

ARM 17.50.708 Table I Volatile Organic Compounds



